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ABSTRACT

With particular focus on the need to provide a practical, systematic introduction to the concept of sentence combining and to the signals used to control the various combining operations, this paper provides detailed specifications for including sentence combining as part of a comprehensive plan for teaching the composing process. The specifications are discussed in relation to studies of written language development and in comparison with existing sentence combining curricula, both experimental programs and commercially published texts. Problems in sequencing sentence combining instruction are described, and several suggestions are offered for designing a sentence combining program. An appendix lists the content and sequence for instruction and contains sample items. (RL)

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INSTRUCTIONAL SPECIFICATIONS FOR SENTENCE COMBINING

Joseph Lawlor

ABSTRACT

The content for sentence-combining instruction is specified. The specifications are discussed in relation to studies of written language development and in comparison to existing sentence-combining curricula. Problems in sequencing sentence-combining instruction are also described. In addition, several suggestions for the design of a sentence-combining program are presented. An appendix lists the scope and sequence of instruction, as well as sample items.

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INSTRUCTIONAL SPECIFICATIONS FOR SENTENCE COMBINING

Joseph Lawlor

A current project in composition instruction (Humes, 1980) includes sentence combining as part of a comprehensive plan for teaching the composing process. This paper provides detailed specifications for the content of such sentence-combining instruction. The specifications are discussed in relation to studies of written language development and in comparison to existing sentence-combining curricula, both experimental programs and commercially published texts. Problems in sequencing sentence-combining instruction are also described. Next, the paper presents several suggestions for designing a sentence-combining program. An appendix to this paper lists the content and sequence for instruction, as well as sample items.

INTRODUCTION TO SENTENCE COMBINING

Sentence combining has been widely recommended as an effective technique for improving students' written syntactic fluency (e.g., Cooper, 1971 and 1973). Research has consistently shown that students who practice sentence combining tend to write longer, more richly elaborated sentences than do students who have no sentence-combining experience (e.g., Mellon, 1969; Combs, 1976). In addition, there are indications that sentence combining can lead to an improvement in the overall quality of students' writing (e.g., O'Hare, 1973; Daiker, Kerek, and Morenberg, 1978).*

*See Lawlor (1980) for a review of the sentence-combining literature.

Sentence-combining techniques grew out of the developmental research of Kellogg Hunt (1965, 1970), who analyzed writing samples produced by writers of various ages. In comparing the syntax used by these writers, Hunt found that older writers tended to write longer T-units*, longer clauses, and more clauses per T-unit than did their younger counterparts. These differences were largely due to the increased use of embedding transformations--syntactic manipulations that allowed older writers to compact and consolidate more information into each of their sentences. Young writers, on the other hand, missed many opportunities to consolidate information; they tended to express related ideas in separate sentences. For example, a young writer might compose the following:

> Moby Dick was a very big whale. He lived in the sea. (Hunt, 1966, p. 733)

An older writer, though, would be more likely to combine these two propositions into a single sentence:

> Moby Dick was a very big whale who lived in the sea. (p. 733)

Hunt's findings, which were generally substantiated by O'Donnell, Griffin, and Norris (1967), also suggested that the development of written syntactic maturity proceeded at an extremely slow rate, taking place over many years. Sentence combining, then, was designed to "speed up" this slow process.

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*Hunt (1965) devised the T-unit (minimal terminable unit) as the basis for his quantative analysis of syntax. A T-unit consists of one main clause plus any subordinate clauses that are attached to or embedded within it.

Sentence-combining exercises require students to combine a series of short sentences into one longer sentence. Students' responses can be constrained by a set of sentence-combining "signals" (see Figure 1), or the sentences can be unsignaled, allowing the student to experiment freely with various combining options (see Figure 2). In both cases, students are encouraged to say their responses out loud before writing them down. Sentence combining is based on the premise that students possess a vast repertoire of syntactic skills--a repertoire that is developed through years of oral language acquisition. Thus sentence-combining does not teach anything "new" about language; it merely asks students to apply their linguistic resources in focused practice so that they may be more aware of syntactic options when they compose original text.

Figure 1

Signaled Sentence-Combining Exercise

SOMETHING is impossible.
A chef cooks meals. (IT-FOR-TO)
The chef is working in this small kitchen.
The meals will satisfy all customers.
(WHICH/THAT)

Solution: It is impossible for a chef working in this small kitchen to cook meals that (which) will satisfy all customers. (O'Hare, 1973, p. 89)

Figure 2

Unsignaled Sentence-Combining Exercise

Children are remarkable for something.
These children are young.
The something is an ability.
The ability is to remain "in touch."
They are in touch with their feelings.

Possible Solution: Young children are remarkable for their ability to remain "in touch" with their feelings. (Strong, 1973, p. 17)

CONTENT FOR SENTENCE-COMBINING INSTRUCTION

The content for sentence-combining instruction consists of those syntactic operations that writers employ to achieve maximum communication with a minimum number of words. The English language provides a variety of ways by which writers may consolidate information. First, they may simply combine sentences (or parts of sentences) with a coordinating conjunction; e.g.:

We went to a movie.
We had a good time.
> We went to a movie and (we) had a good time.

Second, writers may join sentences by using adverbial subordinating conjunctions; e.g.:

We stopped for lunch.
We were hungry.
> We stopped for lunch because we were hungry.

Third, writers may combine sentences by using adjectival embedding operations; e.g.:

The team will be the state champion.
The team wins this game.
> The team that wins this game will be the state champion.

Finally, writers may consolidate sentences by using nominal embedding operations; e.g.:

Something worried Paula.
Jack was late.
> The fact that Jack was late worried Paula.

However, research has shown that these four types of combining processes are not equally effective in achieving the succintness of expression that is characteristic of mature writing. The excessive use of coordinating conjunctions, for example, is a characteristic of immature writing (Hunt, 1965, 1970; O'Donnell et al., 1967). Hunt (1977) describes the role that coordination plays in the development of syntactic maturity:

> At the outset we noticed that our fourth-grader joined two pairs of T-units with and's. He did so with grammatical correctness. He put his and's in the right place, at the boundaries between the T-units. He knows where those boundaries come. But hereafter he will learn to do this less often. Young children do it correctly but profusely. Older writers do it correctly but parsimoniously. (p. 97)

Adverbial conjoining, too, was shown to be an unreliable index of maturity:

> Movable adverb clauses do seem to increase with maturity, but the ceiling is reached early, and after the middle grades the frequency of them tells more about mode of discourse and subject matter than about maturity. (Hunt, 1966, p. 734)

However, adjectival and nominal embeddings were found to be strong indicators of syntactic maturity. Hunt (1965) noted that these two types of sentence-combining operations increased

dramatically in the writing of older students. Cooper (1973) summarizes Hunt's findings:

> Hunt's study of grammatical structures . . . leaves no doubt that critical factors in written language development are longer and more varied nominals (using noun phrases and clauses in place of simple-word nouns) and amount and depth of adjective modification of nouns. (p. 97)

Christensen (1966), however, challenged this view of maturity in writing, claiming that the use of elaborate nominals and lengthy clauses resulted in "a contorted academic prose" (p. 573). Moreover, Christensen noted that long clauses and complex nominals were difficult to read:

> A mature style must say much in little, agreed, but a mature style must be easy to decode . . .. The real problem in writing is to reconcile these two seeming opposites--to pack much into little, but to pack it so that it can be readily unpacked. (p. 576)

Christensen claimed that the use of "free modifiers" was a more valid index of maturity in writing. These modifiers include nonrestrictive relative clauses, prepositional and participial phrases, appositives, and absolutes. According to Christensen, contemporary prose writers typically use these modifiers in sentence-final position--in effect, adding the modifiers to the end of their base clauses rather than embedding them within the clauses. Christensen called these constructions "cumulative" sentences and claimed that they were the hallmark of mature prose. The following sentence, written by Ernest Hemingway, exemplifies the cumulative sentence--a short base clause followed by a series of loosely connected free modifiers:

> The gypsy was walking out toward the bull again, walking heel-and-toe, insultingly, like a ball-room dancer, the red shafts of the banderillos twitching with his walk. (Christensen, 1967, p. 35)

Other authorities, though, suggested that Christensen's definition of a "mature style" was far too restrictive (Mellon, 1969; Johnson, 1969). Cooper (1973) points out that Christensen's theory does not necessarily conflict with Hunt's (1965) findings:

> The cumulative sentence with its final free modifiers is very common in modern prose, but it has not replaced the embedded sentence, an impression one can get on reading Christensen. Embeddings and accumulations can occur in the same sentences, of course. The fact remains that mature syntax is characterized <u>in large part</u> by amount and depth of embedding, and this is a developmental task the child must master (p. 98, emphasis in original text).

Winterowd (1975) also stresses the importance of embedding operations:

> Nor is the creation of meaning through embedding operations a trivial quality, but rather one of the great creative powers that the language confers upon its users; the power to express relationships through a finite series of recursive devices (p. 29).

It would seem logical, then, that sentence-combining instruction should emphasize the use of those operations that are most indicative of mature syntax (as defined by both Hunt and Christensen), i.e., adjectival embedding, nominal embedding, and free modification. Nevertheless, experimental sentence-combining curricula and published sentence-combining textbooks have typically included all types of combining operations, including those that are not generally associated with syntactic maturity (e.g., coordinate

conjoining). (A rationale for including such "immature" operations is provided below in the discussion of the sequence for instruction.) Sentence-combining programs have traditionally included the following content*:

I. Coordinate conjoining
II. Adverbial conjoining
    A. Adverbial clauses
    B. Adverbial phrases
III. Restrictive adjectival embedding
    A. Adjective clauses
    B. Adjective phrases
    C. Single-word adjectives
IV. Nominal embedding
    A. Noun clauses
        1. Factive clauses
        2. Interrogative clauses
    B. Noun phrases
        1. Gerunds
        2. Infinitives
        3. Derived nouns
V. Free modifiers
    A. Nonrestrictive adjective clauses
    B. Modifying phrases

SEQUENCE FOR SENTENCE-COMBINING INSTRUCTION

Sentence combining is based on the assumption that by the time students enter school, they are capable of performing in their speech most of the syntactic manipulations required by their language. Moreover, the studies by Hunt (1965) and O'Donnell et al. (1967) showed that even very young writers were able to produce complex syntactic structures in their writing. Thus what differentiates older writers from younger writers is not the kind of

*Detailed specifications for this content can be found in the appendix to this paper.

structures they use, but the frequency with which they use certain structures.

This underlying assumption about students' linguistic competence may help to explain why there is little agreement among authorities on the appropriate sequence for sentence-combining instruction. If students already know how to orally perform the various conjoining and embedding operations, then it would not seem too important how these operations were presented in instruction. That is, students are not likely to find one sentence-combining operation more "difficult" than another, at least from a linguistic point of view.

Obviously, though, sentence-combining lessons must be presented in some kind of sequence. However, the literature provides little support for using any particular sequence. For example, in two fourth-grade sentence-combining programs (Hunt and O'Donnell, 1970; Perron, 1974), instruction begins with relative-clause embeddings and moves on to reduced-clause relative structures. At this point, Hunt and O'Donnell continue with coordinate sentence elements, factive noun clauses (with the expletive it inversion), and question transformations. Perron, however, includes (in order) factive noun clauses, coordinate predicate phrases, and interrogative noun clauses. Both programs conclude with several lessons on movable adverbial clauses.

In a seventh-grade sentence-combining study, Mellon (1969) presents a sequence that is very different from the two fourth-grade

programs. Mellon's instruction begins with question transformations and other single-sentence operations (e.g., passive transformations). Next, he introduces nominal embeddings, including factive and interrogative noun clauses, it inversion, infinitives, gerunds, and derived nouns. The program then continues with relative-clause embeddings, participial phrases, infinitives (as adjectival modifiers), appositives, and, finally, pre-nominal adjectives and participles.*

In another seventh-grade study, O'Hare (1973) generally follows Mellon's sequence for instruction. However, in his sentence-combining textbook, Sentencecraft, O'Hare (1975) makes two changes in the content and sequence of his program. First, he includes a brief introductory lesson on coordinate predicate phrases and coordinate free modifiers. The purpose of this lesson seems to be to acquaint students with the concept of sentence combining and to provide some preliminary practice with the signaling system. Second, O'Hare includes adverbial clauses and phrasal adverbial modifiers in the final chapters of his text. Most of these adverbials are free modifiers, and the exercises include many cumulative sentences.

Cooper (1973) recommends still another sequence for sentence-combining instruction. He begins with pre-nominal adjectives, participles, and compound adjectives. Next he introduces

*Mellon (1969, p. 81) points out that he had intended to include free modifiers in the projected second year of his sentence-combining program. However, this phase of the study was never completed.

post-nominal prepositional phrases, appositives, participial phrases, and infinitives. Unlike other authorities, Cooper introduces full relative clauses after the reduced-clause adjectival modifiers. His outline for instruction then moves on to factive and interrogative noun clauses, gerunds, and infinitives.

Despite this wide disparity of opinion among sentence-combining authorities, some suggestions for sequencing instruction can be drawn from the literature. Perhaps the most important of these suggestions is that the sequence for sentence-combining instruction may be constrained more by practical considerations (e.g., teaching the system of sentence-combining signals) than by linguistic content.*

Thus the instructional sequence outlined in the appendix to this paper is based largely on the need to provide a practical, systematic introduction to the concept of sentence combining and to the signals used to control the various combining operations. The introductory lessons focus on the relatively simple operations of coordinate conjoining and adverbial-clause conjoining--operations that require minimal changes in word order and that should be familiar to most students. Since the content of these lessons is

*However, a recent study by Kleen (1981) indicates that the field of developmental psycholinguistics can provide insights into the appropriate sequence for sentence-combining instruction. Kleen also suggests that such insights have been largely ignored in published sentence-combining textbooks. (However, the complete text of Kleen's study was not available at the time this paper was prepared.) Consequently, the scope and sequence presented here may be modified as additional research becomes available and instructional materials are developed.

fairly "simple," instruction can focus on the use of the sentence-combining signals themselves.

Students are next introduced to adjectival embeddings. The order of presentation is as follows: restrictive relative clauses, phrasal adjectivals, and single-word adjectivals. Most sentence-combining programs have followed this sequence, introducing full-clause embeddings first, followed by the reduced-clause structures that are derived from full clauses. Although such a sequence seems logical, there is little empirical evidence supporting this order of presentation. (Sentence-combining studies have traditionally examined the effects of sentence-combining instruction versus no sentence-combining instruction. Few studies have investigated the differences between or among various types of sentence-combining treatments.) Consequently, this instructional sequence (i.e., clause → phrase → word) should be regarded as tentative. Additional research and classroom experience may suggest a more appropriate order of presentation.

Nominal embeddings are introduced next in the instructional sequence. Again, full clauses are listed first, followed by phrases and single words. Although the signals for full-clause nominal embeddings are relatively straightforward, the signals for reduced-clause nominals are more complex because they require changes in word forms as well as in word order; e.g.:

SOMETHING is off-key.
Jim sings. ('S + ING) > Jim's singing is off-key.

SOMETHING alarmed the community.
The mayor disappeared.
(DISAPPEARANCE + OF)
→ The disappearance of the mayor alarmed the community.

Consequently, there is some justification for including reduced-clause nominal embeddings later in the instructional sequence.

The final section of the instructional specifications covers free modifiers and cumulative sentences. These structures include appositives, participial phrases, absolutes, nonrestrictive adjective clauses, and adjective clusters.

DESIGN OF SENTENCE-COMBINING INSTRUCTION

The specifications listed in the appendix to this paper provide a broad overview of the scope and sequence for sentence-combining instruction. However, several additional factors must be considered in the actual design of instruction.

Grade Levels

Which sentence-combining operations are appropriate for particular grade levels? Research has shown that fourth-grade students are able to handle coordinate and adverbial conjoining, adjectival embedding, and some nominal embedding (e.g., Perron, 1974; Miller and Ney, 1968). However, the complexity of some of the nominal-embedding signals may limit their usefulness with elementary students.

Young students are also likely to have difficulty using free modifiers, not because the combining signals are complex, but

because of certain cognitive constraints. Mellon (1979) has pointed out that free modifiers are essentially "surface-structure maneuvers unique to particular languages, that occur mostly in writing and clearly are learned only through experience with the written language" (p. 20). In order to use such structures, Mellon claims, students must be mature enough to view their writing as a "craftable artifact" (p. 21). Young writers, though, have had limited experience with the written language, and they generally have not reached the stage of cognitive development where they are able to view their writing as an entity separate from themselves, i.e., an entity that can be consciously manipulated. According to Mellon, it is not until the junior high years that students are likely to have the experience and cognitive skills necessary to make use of free modifiers in their writing. Consequently, the teaching of such structures is probably not suited to the elementary grades.

Thus sentence-combining instruction at the elementary level should probably be limited to coordinate conjoining, adverbial clause conjoining, adjectival embedding, and noun-clause embedding. Junior high and secondary programs can include all of the above plus reduced-clause nominal embedding and free modification. However, sentence-combining instruction should be flexible enough to account for differences in students' abilities within these levels.

Grammar versus No Grammar

Although Mellon's pioneering research (1969) included sentence combining within the framework of a transformational grammar class,

subsequent research has shown that sentence combining is in no way dependent upon formal grammar study. O'Hare (1973) developed a system of sentence-combining signals that completely eliminated the need for grammatical terminology. In discussing the advantages of his signaling system, O'Hare (1973) notes that

> The attractiveness of the sentence-combining signals . . . lies in their simplicity, their consistency, their flexibility, and their practicality . . .. The elimination of the study of transformational grammar and of transformational nomenclature makes all of this possible. With the threat of grammatical failure removed, the developing writer can get on with solving sentence-structure problems and confidently face the real issue--that of blending form and idea in any given rhetorical situation. (p. 76)

Research has consistently shown that formal grammar study does not improve written composition skills (e.g., Harris, 1962; Elley, Barham, Lamb, and Wyllie, 1976). Despite these findings, some instructional designers insist on including grammar study (and/or grammatical terminology) in sentence-combining instruction (Bivens and Edwards, 1974; Klein, 1976; Wisconsin Writing Project, 1978; Ney, 1976). However, the justification for including grammar study in sentence-combining programs seems tenuous, at best. The purpose of sentence combining is to improve writing skills. The purpose of formal grammar study, though, seems to be quite different, as even the Wisconsin Writing Project (1978) admits:

> We believe there are merits to the study of formal grammar: development of critical thinking skills, acquisition of a common descriptive tool, awareness of the uniqueness of human expression (p. 6).

Even if one were to grant that grammar study does indeed produce the effects noted above, the fact remains that formal grammar study has little or no effect on improving students' sentence structure. Consequently, the instructional specifications listed in this paper do not include a grammar-study component. The grammatical terms used in the appendix are not intended to be part of the instructional program; they are used for identification purposes only.

Exercise Formats

Most authorities recommend that both signaled and unsignaled sentence-combining exercises be included in instruction. Signaled exercises can provide focused practice on particular syntactic operations. Unsignaled exercises allow students to experiment with various combining strategies, selecting the one combination that seems to work best. Comparison of a variety of student responses to unsignaled exercises can lead to profitable discussions of the rhetorical effects of different combinations. Mellon (1979) recommends a ratio of one unsignaled exercise for every four signaled exercises.

Sentence-combining instruction should also provide many opportunities for review, preferably with multiple-sentence exercises. Such exercises can include paragraph-length blocks similar to those developed by Strong (1973).*

*See Lawlor, Cronnell, Humes, and Gentry (1981) for a review of Strong's sentence-combining textbook.

Readability

Some authorities have expressed concern about the effect of sentence combining on the readability of students' writing (e.g., Kinneavy, 1979). Caution is certainly warranted, because lengthy, heavily embedded clauses can adversely affect the readability of a text. However, the ultimate goal of sentence combining is not to force students into writing unnecessarily elaborate sentences--sentences that Kinneavy has called "stylistic monsters" (1979, p. 71). Rather, the purpose of sentence-combining instruction is to expand students' repertoire of syntactic options by showing them different ways of expressing ideas. The ultimate choice for selecting one particular option must certainly be governed by considerations other than sentence length. Hunt (1979) describes a sentence-combining program that he designed:

> Each exercise was a problem in how to express some prescribed thought in the best way, that is, using the best sentence structure. It was not an exercise in writing the longest T-units but the best ones (p. 155).

Sentence combining can also ameliorate readability problems by providing practice with syntactic operations that improve the readability of written text (e.g., _it_ inversion, free modification). Moreover, by comparing various responses to unsignaled sentence-combining exercises, students can learn to apply the principles for writing readable prose.

Sentence Combining and Writing Instruction

Several researchers have suggested that sentence combining can comprise an entire writing course (e.g., Daiker, Kerek, and Morenberg, 1978; Hunt, 1979). However, most authorities believe that sentence combining should only serve as one part of the total writing curriculum (e.g., Mellon, 1979; O'Hare, 1973; Strong, 1979). This latter view seems the more reasonable one, since the composing process involves much more than simply constructing sentences. Composition instruction must deal with all aspects of writing, such as defining audience and purpose, and generating content.* Sentence combining provides little or no assistance in these areas. O'Hare (1973) acknowledges the limits of sentence-combining instruction:

> Although this researcher has rather strenuously urged that more attention be paid to the syntactic manipulative skill and for a more important place for "style as syntax" in the curriculum, he is merely suggesting a possible new emphasis in rhetorical instruction and is in no sense denying or even questioning the importance of the other members of the classical rhetorician's tripod, invention and arrangement (p. 76).

Strong (1979) recognizes similar limitations when he recommends that sentence combining be used "as a skill-building adjunct to a writing program--not as an exclusive approach in and of itself" (p. 215).

Nevertheless, there is some debate among authorities on the optimum amount of time that should be devoted to sentence-combining instruction. Mellon (1979) reports that 50 minutes of class time

*Humes (1980) provides detailed specifications for composition instruction.

per week was adequate in his seventh-grade curriculum (p. 26). He further recommends a regimen of "two cued problems daily on average, and two whole-discourse exercises per week" (p.33). O'Hare (1973) included approximately 75 minutes of instruction per week in his seventh-grade program, supplemented by 30 minutes of homework weekly (pp. 42-3). Perron (1974) allocated two hours per week to sentence combining in his fourth-grade curriculum (p. 89). However, Lomax (1980) suggests that as little as "five or ten minutes of work three times a week" (p. 18) is sufficient. Thus it seems clear that the time spent on sentence combining will vary according to the preferences of individual teachers, the age and ability of the students, and the demands of individual writing programs. Thirty minutes of instructional time per week would seem to be the minimum amount that should be devoted to sentence combining, with 90 minutes per week representing the maximum. Given these parameters, sentence-combining instruction still represents a modest investment of time, considering the benefits that students are likely to gain.

REFERENCES

Bivens, W. and Edwards, A. Transformational grammar and writing improvement. Paper presented at the Annual Meeting of the Conference on College Composition and Communication, Anaheim, California, 1974. ERIC Accession No. ED 101 361.

Christensen, F. Notes toward a new rhetoric. New York: Harper and Row, 1967.

Christensen, F. The problem of defining a mature style. English Journal, 1968, 57, 572-579.

Combs, W. Some further effects of sentence-combining practice on writing ability. Research in the Teaching of English, 1976, 10, 137-149.

Cooper, C. A no-grammar approach to sentence power: John C. Mellon's sentence-combining games. California English Journal, 1971, 7, 35-40. ERIC Accession No. ED 053 113.

Cooper, C. An outline for writing sentence-combining problems. English Journal, 1973, 62, 96-102, 108.

Daiker, D., Kerek, A., & Morenberg, M. Sentence combining and syntactic maturity in freshman English. College Composition and Communication, 1978, 29, 36-41.

Elley, W., Barham, I., Lamb, H., and Wyllie, M. The role of grammer in a secondary school English curriculum. Research in the Teaching of English, 1976, 10, 5-21.

Harris, R. An experimental inquiry into the functions and value of formal grammar in the teaching of English, with special reference to the teaching of correct written English to children aged twelve to fourteen. Doctoral Dissertation, University of London, 1962.

Humes, A. Specifications for composition instruction. (Technical Note 2-80/21.) Los Alamitos, Calif.: SWRL Educational Research and Development, 1980.

Hunt, K. Anybody can teach English. In Daiker, D., Kerek, A., & Morenberg, M. (eds.), Sentence combining and the teaching of writing. Akron, Ohio: University of Akron, Department of English, 1979. Pp. 149-157.

Hunt, K. Early blooming and late blooming syntactic structures. In Cooper, C., and Odell, L. (eds.), Evaluating writing: Describing, measuring, judging. Urbana, Ill.: National Council of Teachers of English, 1977. Pp. 91-104.

Hunt, K. Grammatical structures written at three grade levels. Research Report No. 3. Champaign, Ill.: National Council of Teachers of English, 1965.

Hunt, K. Recent measures in syntactic development. Elementary English, 1966, 43, 732-739.

Hunt, K. Syntactic maturity in schoolchildren and adults. Monographs of the Society for Research in Child Development, Serial No. 134, Vol. 35, No. 3, 1970.

Hunt, K. & O'Donnell, R. An elementary school curriculum to develop better writing skills. Tallahassee, Fla.: Florida State University, 1970. ERIC Accession No. ED 050 108.

Johnson, S. Some tentative strictures on generative rhetoric. College English, 1969, 31, 155-165.

Kinneavy, J. Sentence combining in a comprehensive language framework. In Daiker, D., Kerek, A., & Morenberg, M. (eds.), Sentence combining and the teaching of writing. Akron, Ohio: University of Akron, Department of English, 1979. Pp. 60-76.

Kleen, J. Sentence-combining and developmental psycholinguistics: A critique of seven sentence-combining textbooks. Dissertation Abstracts International, 1981, 41, 3461-A.

Klein, M. Teaching sentence structure and sentence combining in the middle grades. Madison: Wisconsin State Department of Public Instruction, 1976. ERIC Accession No. ED 126 510.

Lawlor, J. Improving student writing through sentence combining: A literature review. (Technical Note 2-80/05.) Los Alamitos, Calif.: SWRL Educational Research and Development, 1980.

Lawlor, J., Cronnell, B., Humes, A., & Gentry, L. Current books on composition: Some reviews. (Technical Note 2-81/04.) Los Alamitos, Calif.: SWRL Educational Research and Development, 1981.

Legum, S. Strategies in the acquisition of relative clauses. (Technical Note 2-75-10.) Los Alamitos, CA: SWRL Educational Research and Development, 1975.

Lomax, W. Sentence combining across the curriculum. California English, 1980, 16, 18-21.

Mellon, J. Issues in the theory and practice of sentence combining: A twenty-year perspective. In Daiker, D., Kerek, A., & Morenberg, M. (eds.), Sentence combining and the teaching of writing. Akron, Ohio: University of Akron, Department of English, 1979. Pp. 1-38.

Mellon, J. Transformational sentence-combining: A method for enhancing the development of syntactic fluency in English composition. Research Report No. 10. Urbana, Ill.: National Council of Teachers of English, 1979.

Miller, B. & Ney, J. The effect of systematic oral exercises on the writing of fourth-grade students. Research in the Teaching of English, 1978, 12, 245-256.

Ney, J. The hazards of the course: Sentence combining in freshman English. The English Record, 1976, 27, 70-77.

O'Donnell, R., Griffin, W., & Norris, R. Syntax of kindergarten and elementary school children: A transformational analysis. Research Report No. 8. Champaign, Ill.: National Council of Teachers of English, 1967.

O'Hare, F. Sentence combining: Improving student writing without formal grammar instruction. Research Report No. 15. Urbana, Ill.: National Council of Teachers of English, 1973.

O'Hare, F. Sentencecraft. Lexington, Mass.: Ginn and Company, 1975.

Perron, J. An exploratory approach to extending syntactic development of fourth-grade students through the use of sentence-combining methods. Doctoral dissertation, Indiana University, 1974.

Strong, W. Doing sentence combining: Some practical hints. In Daiker, D., Kerek, A., & Morenberg, M. (eds.), Sentence combining and the teaching of writing. Akron, Ohio: University of Akron, Department of English, 1979. Pp. 209-215.

Strong, W. Sentence combining: A composing book. New York: Random House, 1973.

Winterowd, W. R. Contemporary rhetoric. New York: Harcourt, Brace Jovanovich, 1975.

Wisconsin Writing Project. A guide to the role of grammar in teaching writing. Madison: University of Wisconsin, 1978.

APPENDIX

SENTENCE COMBINING: INSTRUCTIONAL SPECIFICATIONS

Unit 1: Introduction to Sentence Combining

Lesson 1: Coordination within Sentences*

a. coordinate predicate phrases

Terry jumped for the ball.
Terry missed it. (AND) > Terry jumped for the ball and missed it.

b. coordinate direct objects and predicate nominatives

I ate a sandwich.
I ate a banana. (AND) > I ate a sandwich and a banana.

She is a good student.
She is a talented athlete.
(AND) > She is a good student and a talented athlete.

c. coordinate adverbs and predicate adjectives

Tom spoke clearly.
Tom spoke calmly. (AND) > Tom spoke clearly and calmly.

The weather was cold.
The weather was windy.
(AND) > The weather was cold and windy.

d. review: include all of the above in two-sentence exercises; introduce multiple-sentence exercises

Jack bought ice cream.
Jack bought cake.
Jack bought cookies. (AND) > Jack bought ice cream, cake, and cookies.

Lesson 2: Movable Adverbial Clauses

a. time clauses in final position

We watched television.
We had finished our homework.
(AFTER) > We watched television after we had finished our homework.

*The grammatical terms appearing in these specifications should not be used with students. Sentence combining is not dependent upon formal grammar study.

b. other adverbial clauses in final position

We stopped for the night.
We were tired. (BECAUSE)
→ We stopped for the night because we were tired.

c. adverbial clauses in initial position

You study hard for the test.
(IF)
You will pass it easily.
→ If you study hard for the test, you will pass it easily.

d. review: include coordinates and adverbial clauses in multiple-sentence exercises; introduce unsignaled exercises

Mary overslept this morning.
She missed the bus.
She had to walk to school.
→ Since Mary overslept this morning, she missed the bus and had to walk to school.

Unit 2: Adjectival Structures

Lesson 1: Restrictive relative clauses

a. who and that clauses modifying objects; subject of the insert sentence is relativized*

We identified the burglar. The burglar stole the jewels. (WHO) > We identified the burglar who stole the jewels.

Gina caught a fish. The fish weighed five pounds. (THAT) > Gina caught a fish that weighed five pounds.

b. who and that clauses modifying subjects; subject of insert sentence is relativized

The boy was very happy. The boy won the prize. (WHO) > The boy who won the prize was very happy.

The team will be the state champion. The team wins this game. (THAT) > The team that wins this game will be the state champion.

c. that, whom, and deleted-pronoun clauses modifying subjects and objects; an object of the insert sentence is relativized

The movie was funny. We saw the movie. (THAT) > The movie that we saw was funny.

Jerry met a man. You admire the man. (WHOM) > Jerry met a man whom you admire.

The door is stuck again. You fixed the door. (JUST JOIN) > The door you fixed is stuck again.

*In an oral comprehension study, Legum (1975) reports that kindergarten, first-, and second-grade students found clauses containing relativized subjects to be easier than clauses containing relativized objects. Thus there is some justification for sequencing relativized subjects before relativized objects. Such a sequence was successfully employed by Hunt and O'Donnell (1970) in a fourth-grade sentence-combining experiment.

d. review: include all of the above plus coordinates and adverbial clauses in multiple-sentence exercises, both signaled and unsignaled:

The game was over. (AS SOON AS)
The fans ran up to the players.
The fans had waited near the end zone. (WHO)
The fans congratulated them. (AND)

→ As soon as the game was over, the fans who had waited near the end zone ran up to the players and congratulated them.

Lesson 2: Post-nominal phrasal modifiers

a. present and past participial phrases

The girl is my sister.
The girl is standing on the porch.

→ The girl standing on the porch is my sister.

The houses are being repaired.
The houses were damaged in the fire.

→ The houses damaged in the fire are being repaired.

b. prepositional phrases and infinitives

A woman walked through the door.
The woman was in a uniform.

→ A woman in a uniform walked through the door.

The food was stolen.
The food was to be given to the poor.

→ The food to be given to the poor was stolen.

c. restrictive appositives

My friend won the speech contest.
My friend is Janice.

→ My friend Janice won the speech contest.

d. review: include all phrasal modifiers and relative clauses: multiple-sentence exercises, both signaled and unsignaled

Lesson 3: Pre-nominal modifiers

a. simple adjectives

A bird flew in the window.
The bird was yellow.

→ A yellow bird flew in the window.

b. present participles

A road led to the cabin.
The road was winding.
> A winding road led to the cabin.

c. past participles

The boat drifted in the water.
The boat had been abandoned.
> The abandoned boat drifted in the water.

d. possessives

The bike is new.
John owns the bike. ('S)
> John's bike is new.

e. review: include all pre- and post-nominal relatives, as well as coordinates and adverbial clauses, in signaled and unsignaled exercises

Unit 3: Nominal Structures

Lesson 1: Factive noun clauses

a. that clauses as objects

We knew SOMETHING.
We would win. (THAT) > We knew that we would win.

b. deleted-that clauses as objects

John said SOMETHING.
He doesn't feel well. (JUST JOIN) > John said he doesn't feel well.

c. the fact that clauses as subjects

SOMETHING worries me.
We are almost out of time (THE FACT THAT) > The fact that we are almost out of time worries me.

d. review: include all factive noun clauses and structures that have been introduced previously; signaled multiple-sentence exercises

Lesson 2: Interrogative noun clauses and "it" inversion

a. wh-word clauses

SOMETHING is a mystery.
The pirate hid the treasure somewhere. (WHERE) > Where the pirate hid the treasure is a mystery.

b. how + adjective/adverb clauses

We don't know SOMETHING.
The crater is so deep. (HOW DEEP) > We don't know how deep the crater is.

c. it inversion with factive and interrogative clauses

SOMETHING upset her.
He was late. (IT . . . THAT) > It upset her that he was late.

SOMETHING isn't clear.
We should do something with the money. (IT . . . WHAT) > It isn't clear what we should do with the money.

d. review: emphasize noun-clause embeddings, and it inversion in signaled and unsignaled multiple-sentence exercises

Lesson 3: Gerundive near-clause nominals

a. -ing phrases

Maria enjoys SOMETHING.
Maria plays the piano. (ING) > Maria enjoys playing the piano.

b. possessive + -ing

SOMETHING is off-key
David sings. ('S + ING) > David's singing is off-key.

c. -ing + of

SOMETHING woke her up.
The alarm rang. (ING + OF) > The ringing of the alarm woke her up.

SOMETHING frightened the horses.
The wolves howled mournfully.
(~~X~~ + ING + OF) > The mournful howling of the wolves frightened the horses.

d. review: include all gerundives in signaled, multiple-sentence exercises

Lesson 4: Infinitival near-clause nominals

a. infinitive phrases

SOMETHING would be a good idea.
Someone leaves now. (TO) > To leave now would be a good idea.

b. wh-word + infinitive

SOMETHING was a problem.
Someone gets spare parts somewhere (WHERE TO) > Where to get spare parts was a problem.

c. for + infinitive

SOMETHING would be disastrous.
The plan fails. (FOR. . .TO) > For the plan to fail would be disastrous.

d. it inversion with infinitivals

SOMETHING will be difficult.
We raise the money.
(IT. . .FOR. . .TO) > It will be difficult for us to raise the money.

e. review: include all infinitivals and *it* inversion in signaled multiple-sentence exercises

Lesson 5: Derived-noun phrases

a. derived nouns

SOMETHING led to the company's bankruptcy.
Someone mismanaged the company. (MISMANAGEMENT)
> Mismanagement led to the company's bankruptcy.

b. possessive + derived noun

SOMETHING alarmed the town.
The mayor disappeared. ('S + DISAPPEARANCE)
> The mayor's disappearance alarmed the town.

c. derived noun + *of*

SOMETHING was brief.
The new tax was discussed. (DISCUSSION + OF)
> The discussion of the new tax was brief.

d. possessive + derived noun + *of*

The jury was impressed by SOMETHING
The lawyer presented the case. ('S + PRESENTATION + OF)
> The jury was impressed by the lawyer's presentation of the case.

e. review: include noun clauses, gerundives, infinitivals, derived nouns, and relative structures in multiple-sentence exercises, signaled and unsignaled

Unit 4: Free Modifiers

Lesson 1: Phrasal adverbials

a. with phrases

He was a tall boy.
He had long, thin legs. (WITH)
> He was a tall boy, with long, thin legs.

b. present participial phrases

Ted stood at the rail.
Ted was staring at the water.
> Ted stood at the rail, staring at the water.

c. past participial phrases

The boxer fell to his knees.
The boxer had been stunned by the punch.
> The boxer fell to his knees, stunned by the punch.

d. review: include phrasal modifiers in multiple-sentence exercises, both signaled and unsignaled

Lesson 2: Free modifiers and cumulative sentences

a. nominative absolutes

Paul stood in the doorway.
His hands were in his pockets.
> Paul stood in the doorway, his hands in his pockets.

b. non-restrictive relative clauses

We spoke to Ms. Jackson.
Ms. Jackson has just returned from Europe. (WHO)
> We spoke to Ms. Jackson, who has just returned from Europe.

She visited the town of Garmisch.
Garmisch is located in the German Alps. (WHICH)
> She visited the town of Garmisch, which is located in the German Alps.

c. nonrestrictive appositives

The guest speaker was Mr. Jones.
Mr. Jones is our new principal.
> The guest speaker was Mr Jones, our new principal.

d. adjective clusters

The mule refused to move.
The mule was stubborn beyond belief.
> The mule refused to move, stubborn beyond belief.

e. review: include extensive practice with cumulative sentences in multiple-sentence exercises; incorporate relative, nominal, and adverbial structures in signaled and unsignaled exercises.

Ray drove on.
He drove through the darkness.
The darkness was freezing.
His fingers were clutched tightly around the wheel. (,)
His eyes were fixed on the road ahead. (,)
He thought of SOMETHING. (AS)
He would say something. (WHAT)
He got home. (WHEN)

Ray drove on through the freezing darkness, his fingers clutched tightly around the wheel, his eyes fixed on the road ahead as he thought of what he would say when he got home.